

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-282773

(43)Date of publication of application : 02.10.2002

(51)Int.Cl. B05D 1/36
B05D 3/10
B05D 7/14
B05D 7/24
C25D 13/00
C25D 13/06
C25D 13/10

(21)Application number : 2001-092697

(71)Applicant : NIPPON PAINT CO LTD

(22)Date of filing : 28.03.2001

(72)Inventor : AZUMAI TERUZO
KOJIMA YOSHIO
YAMADA MITSUO

(54) METHOD OF FORMING MULTILAYERED FILM AND MULTILAYERED FILM

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a method of forming a multilayered film, which is capable of providing a 3 coat film having high throwing power even in a 3 coat 1 base coating system using a water paint and providing the 3 coat film having the same film performance such as appearance and corrosion resistance as that obtained by the conventional 3 coat 3 bake coating system.

SOLUTION: In the method of forming the multilayered film by forming an unhardened water based intermediate coating film, water based film and clear film by wet-on-wet system on a hardened cationic delectrodeposition film and after that, hardening by heating at the same time, a lead free cationic electrodeposition having low volatile organic component content(VOC) and low metallic ion concentration is used as the cationic electrodeposition coating material and one prepared by dispersing a film forming resin solution with a nonionic dispersing agent and/or a cationic dispersing agent in water is used as the intermediate coating material.